CONTENTS OF VOLUME 22

Articles and Wald Lecture

ALBIN, J. M. P. On the upper and lower classes for a stationary Gaussian stochastic process 77–93

ALDOUS, DAVID. Recursive self-similarity for random trees, random triangulations and Brownian excursion 527–545

ARCONES, MIGUEL A. Limit theorems for nonlinear functionals of a stationary Gaussian sequence of vectors 2242–2274

ARNAUD, JEAN-PIERRE. Stationary processes indexed by a homogeneous tree 195–218

BARLOW, MARTIN T. AND PERKINS, EDWIN A. On the filtration of historical Brownian motion 1273–1294

BARTOSZEK, WOJCIECH. On concentration functions on discrete groups 1596–1599

BASS, RICHARD F., BURDZY, KRZYSZTOF AND KHOSHNEVISAN, DAVAR. Intersection local time for points of infinite multiplicity 566–625

BENJAMINI, ITAI AND PERES, YUVAL. Markov chains indexed by trees 219–243

BENTKUS, VIDMANTAS, GÖTZE, FRIEDRICH AND ZITIKIS, RIČARDAS. Lower estimates of the convergence rate for U-statistics 1707–1714

BERTOIN, J. AND DONEY, R. A. On conditioning a random walk to stay nonnegative 2152–2167

BETZ, C. AND GZYL, H. Hitting spheres from the exterior 177–179

BEZUIDENHOUT, CAROL AND GRAY, LAWRENCE. Critical attractive spin systems 1160–1194

BLOUNT, DOUGLAS. Density-dependent limits for a nonlinear reaction–diffusion model 2040–2070

BOBKOV, S. G. Isoperimetric inequalities for distributions of exponential type 978–994

BOLTHAUSEN, ERWIN. Localization of a two-dimensional random walk with an attractive path interaction 875–918

BOLTHAUSEN, ERWIN AND DEN HOLLANDER, FRANK. Survival asymptotics for Brownian motion in a Poisson field of decaying traps 160–176

BOSE, ARUP AND DASGUPTA, RATAN. On some asymptotic properties of U statistics and one-sided estimates 1715–1724

BRAMSON, MAURY AND NEUHAUSER, CLAUDIA. Survival of one-dimensional cellular automata under random perturbations 244–263

BURDZY, KRZYSZTOF, KHOSHNEVISAN, DAVAR AND BASS, RICHARD F. Intersection local time for points of infinite multiplicity 566–625

BURKHOLDER, DONALD L. Strong differential subordination and stochastic integration 995–1025

CACOULLOS, T., PAPATHANASIOU, V. AND UTEV, S. A. Variational inequalities with examples and an application to the central limit theorem 1607–1618

CHAMAYOU, JEAN-FRANÇOIS AND LETAC, GÉRARD. A transient random walk on stochastic matrices with Dirichlet distributions 424–430
CHAN, TERENCE. Dynamics of the McKean–Vlasov equation..... 431–441
CHEN, HWA-NIEN. On the stability of a population growth model with sexual reproduction on $\mathbf{Z}^d, d \geq 2$ 1195–1226
CHEN, XIA. On Strassen's law of the iterated logarithm in Banach space 1026–1043
COURBAGE, M. AND HAMDAN, D. Chapman-Kolmogorov equation for non-Markovian shift-invariant measures..... 1662–1677
COX, J. T. AND GREVEN, ANDREAS. Ergodic theorems for infinite systems of locally interacting diffusions 833–853
CSÖRGŐ, SÁNDOR AND MASON, DAVID M. The asymptotic distribution of intermediate sums..... 145–159
DABROWSKI, ANDRÉ ROBERT AND JAKUBOWSKI, ADAM. Stable limits for associated random variables 1-16
DASGUPTA, RATAN AND BOSE, ARUP. On some asymptotic properties of U statistics and one-sided estimates..... 1715–1724
DE LA PEÑA, V. H., MONTGOMERY-SMITH, S. J. AND SZULGA, JERZY. Contraction and decoupling inequalities for multilinear forms and U-statistics..... 1745–1765
DE LA PEÑA, VICTOR H. AND KLASS, MICHAEL J. Order-of-magnitude bounds for expectations involving quadratic forms 1044–1077
DE MASI, A., PELLEGRINOTTI, A., PRESUTTI, E. AND VARES, M. E. Spatial patterns when phases separate in an interacting particle system 334–371
DEHEUVELS, PAUL AND LIFSHITS, MIKHAIL A. Necessary and sufficient conditions for the Strassen law of the iterated logarithm in nonuniform topologies 1838–1856
DEHEUVELS, PAUL AND MASON, DAVID M. Functional laws of the iterated logarithm for local empirical processes indexed by sets..... 1619–1661
DEMBO, AMIR, KARLIN, SAMUEL AND ZEITOUNI, OFER. Critical phenomena for sequence matching with scoring 1993–2021
DEMBO, AMIR, KARLIN, SAMUEL AND ZEITOUNI, OFER. Limit distribution of maximal non-aligned two-sequence segmental score . 2022–2039
DEN HOLLANDER, FRANK AND BOLTHAUSEN, ERWIN. Survival asymptotics for Brownian motion in a Poisson field of decaying traps 160–175
DEN HOLLANDER, FRANK AND GREVEN, ANDREAS. Large deviations for a random walk in random environment 1381–1428
DEUSCHEL, JEAN-DOMINIQUE. Algebraic L^2 decay of attractive critical processes on the lattice 264–283
DONEY, R. A. AND BERTOIN, J. On conditioning a random walk to stay nonnegative..... 2152–2167

DUPUIS, PAUL AND WILLIAMS, RUTH J. Lyapunov functions for semimartingale reflecting Brownian motions 680–702
DURRETT, R. AND NEUHAUSER, C. Particle systems and reaction–diffusion equations 289–333
EINMAHL, UWE AND MASON, DAVID M. A universal Chung-type law of the iterated logarithm 1803–1825
FENG, SHUI. Large deviations for empirical process of mean-field interacting particle system with unbounded jumps 2122–2151
FERRARI, P. A. AND FONTES, L. R. G. Current fluctuations for the asymmetric simple exclusion process 820–832
FERRARI, P. A., GALVES, A. AND LANDIM, C. Exponential waiting time for a big gap in a one-dimensional zero-range process .. 284–288
FONTES, L. R. G. AND FERRARI, P. A. Current fluctuations for the asymmetric simple exclusion process 820–832
GALVES, A., LANDIM, C. AND FERRARI, P. A. Exponential waiting time for a big gap in a one-dimensional zero-range process .. 284–288
GINÉ, EVARIST AND ZINN, JOEL. A remark on convergence in distribution of U-statistics 117–125
GNEDIN, ALEXANDER V. Pick the largest number: a solution to the game of googol 1588–1595
GOEL, PREM K. AND HALL, PETER. On the average difference between concomitants and order statistics 126–144
GOGGIN, EIMEAR M. Convergence in distribution of conditional expectations 1097–1114
GÖTZE, FRIEDRICH, ZITIKIS, RIČARDAS AND BENTKUS, VIDMANTAS. Lower estimates of the convergence rate for U-statistics 1707–1714
GRAY, LAWRENCE AND BEZUIDENHOUT, CAROL. Critical attractive spin systems 1160–1194
GREVEN, ANDREAS AND COX, J. T. Ergodic theorems for infinite systems of locally interacting diffusions 833–853
GREVEN, ANDREAS AND DEN HOLLANDER, FRANK. Large deviations for a random walk in random environment 1381–1428
GRIFFIN, PHILIP S. AND MCCONNELL, TERRY R. Gambler's ruin and the first exit position of random walk for large spheres 1429–1472
GZYL, H. AND BETZ, C. Hitting spheres from the exterior 177–179
HALL, PETER AND GOEL, PREM K. On the average difference between concomitants and order statistics 126–144
HAMDAN, D. AND COURBAGE, M. Chapman-Kolmogorov equation for non-Markovian shift-invariant measures 1662–1677
HEUNIS, A. J. AND KOURITZIN, M. A. A law of the iterated logarithm for stochastic processes defined by differential equations with a small parameter. 659–679
HITCZENKO, PAWEŁ. On a domination of sums of random variables by sums of conditionally independent ones 453–468
IMKELLER, PETER AND NUALART, DAVID. Integration by parts on Wiener space and the existence of occupation densities 469–493

ISCOE, I. AND MCDONALD, D. Asymptotics of exit times for Markov jump processes. I 372–397
ISCOE, I. AND MCDONALD, D. Asymptotics of exit times for Markov jump processes. II: Applications to Jackson networks 2168–2182
JAKUBOWSKI, ADAM AND DABROWSKI, ANDRÉ ROBERT. Stable limits for associated random variables 1–16
JANSSEN, ARNOLD. Sums of independent triangular arrays and extreme order statistics 1766–1793
KALPAZIDOU, S. Rotational representations of transition matrix functions 703–712
KARLIN, SAMUEL, ZEITOUNI, OFER AND DEMBO, AMIR. Critical phenomena for sequence matching with scoring 1993–2021
KARLIN, SAMUEL, ZEITOUNI, OFER AND DEMBO, AMIR. Limit distribution of maximal non-aligned two-sequence segmental score . 2022–2039
KESTEN, HARRY AND MALLER, R. A. Infinite limits and infinite limit points of random walks and trimmed sums 1473–1513
KHALFIN, L. A. AND KLEBANOV, L. B. A solution of the computer tomography paradox and estimating the distances between the densities of measures with the same marginals 2235–2241
KHOSHNEVISAN, DAVAR. Exact rates of convergence to Brownian local time 1295–1330
KHOSHNEVISAN, DAVAR, BASS, RICHARD F. AND BURDZY, KRZYSZTOF. Intersection local time for points of infinite multiplicity 566–625
KLASS, MICHAEL J. AND DE LA PEÑA, VICTOR H. Order-of-magnitude bounds for expectations involving quadratic forms 1044–1077
KLASS, MICHAEL J. AND ZHANG, CUN-HUI. On the almost sure minimal growth rate of partial sum maxima 1857–1878
KLEBANOV, L. B. AND KHALFIN, L. A. A solution of the computer tomography paradox and estimating the distances between the densities of measures with the same marginals 2235–2241
KLEIN, ABEL. Extinction of contact and percolation processes in a random environment 1227–1251
KNIGHT, FRANK B. AND MAISONNEUVE, BERNARD. A characterization of stopping times 1600–1606
KOURITZIN, M. A. AND HEUNIS, A. J. A law of the iterated logarithm for stochastic processes defined by differential equations with a small parameter. 659–679
KRISTIANSEN, GUNDORPH K. A proof of Steutel's conjecture 442–452
KUELBS, JAMES, LI, WENBO V. AND TALAGRAND, MICHEL. Lim inf results for Gaussian samples and Chung's functional LIL 1879–1903
LAI, TZE LEUNG AND WANG, JULIA QIZHI. Asymptotic expansions for the distributions of stopped random walks and first passage times 1957–1992
LANDIM, C., FERRARI, P. A. AND GALVES, A. Exponential waiting time for a big gap in a one-dimensional zero-range process .. 284–288

LETAC, GÉRARD AND CHAMAYOU, JEAN-FRANÇOIS. A transient random walk on stochastic matrices with Dirichlet distributions 424–430
LI, WENBO V., TALAGRAND, MICHEL AND KUELBS, JAMES. Lim inf results for Gaussian samples and Chung's functional LIL 1879–1903
LIFSHITS, MIKHAIL A. AND DEHEUVELS, PAUL. Necessary and sufficient conditions for the Strassen law of the iterated logarithm in nonuniform topologies 1838–1856
LIGGETT, THOMAS M. Coexistence in threshold voter models 764–802
LU, SHENGLIN. Equilibrium fluctuations of a one-dimensional nongradient Ginzburg–Landau model 1252–1272
LYONS, T. J. AND ZHANG, T. S. Decomposition of Dirichlet processes and its application 494–524
MADRAS, NEAL, SCHONMANN, ROBERTO H. AND SCHINAZI, RINALDO. On the critical behavior of the contact process in deterministic inhomogeneous environment 1140–1159
MAES, C. AND VAN DEN BERG, J. Disagreement percolation in the study of Markov fields 749–763
MAISONNEUVE, BERNARD AND KNIGHT, FRANK B. A characterization of stopping times 1600–1606
MAJOR, PÉTER. Asymptotic distributions for weighted U-statistics 1514–1535
MALLER, R. A. AND KESTEN, HARRY. Infinite limits and infinite limit points of random walks and trimmed sums 1473–1513
MARCUS, MICHAEL B. AND ROSEN, JAY. Laws of the iterated logarithm for the local times of symmetric Lévy processes and recurrent random walks 626–658
MARTON, KATALIN AND SHIELDS, PAUL C. Entropy and the consistent estimation of joint distributions 960–977
MASON, DAVID M. A universal one-sided law of the iterated logarithm 1826–1837
MASON, DAVID M. AND CSÖRGŐ, SÁNDOR. The asymptotic distribution of intermediate sums 145–159
MASON, DAVID M. AND DEHEUVELS, PAUL. Functional laws of the iterated logarithm for local empirical processes indexed by sets 1619–1661
MASON, DAVID M. AND EINMAHL, UWE. A universal Chung-type law of the iterated logarithm 1803–1825
MCCONNELL, TERRY R. AND GRIFFIN, PHILIP S. Gambler's ruin and the first exit position of random walk for large spheres 1429–1472
MCDONALD, D. AND ISCOE, I. Asymptotics of exit times for Markov jump processes. I 372–397
MCDONALD, D. AND ISCOE, I. Asymptotics of exit times for Markov jump processes. II: Applications to Jackson networks 2168–2182
MONTGOMERY-SMITH, S. J., SZULGA, JERZY AND DE LA PEÑA, V. H. Contraction and decoupling inequalities for multilinear forms and U-statistics 1745–1765

MUKHERJEA, ARUNAVA. Tightness of products of i.i.d. random matrices. II 2223–2234
NEUHAUSER, CLAUDIA AND BRAMSON, MAURY. Survival of one-dimensional cellular automata under random perturbations 244–263
NEUHAUSER, C. AND DURRETT, R. Particle systems and reaction–diffusion equations 289–333
NORVAIŠA, RIMAS AND SAMORODNITSKY, GENNADY. Stable processes with sample paths in Orlicz spaces 1904–1929
NUALART, DAVID AND IMKELLER, PETER. Integration by parts on Wiener space and the existence of occupation densities 469–493
OKAZAKI, YOSHIAKI AND SATO, HIROSHI. Distinguishing a sequence of random variables from a random translate of itself 1092–1096
PAPATHANASIOU, V., UTEV, S. A. AND CACOULLOS, T. Variational inequalities with examples and an application to the central limit theorem 1607–1618
PELLEGRINOTTI, A., PRESUTTI, E., VARES, M. E. AND DE MASI, A. Spatial patterns when phases separate in an interacting particle system 334–371
PEMANTLE, ROBIN AND PERES, YUVAL. Domination between trees and application to an explosion problem 180–194
PERES, YUVAL AND BENJAMINI, ITAI. Markov chains indexed by trees 219–243
PERES, YUVAL AND PEMANTLE, ROBIN. Domination between trees and application to an explosion problem 180–194
PERKINS, EDWIN A. AND BARLOW, MARTIN T. On the filtration of historical Brownian motion 1273–1294
PICARDELLO, MASSIMO A. AND WOESS, WOLFGANG. The full Martin boundary of the bi-tree 2203–2222
PINELIS, IOSIF. Optimum bounds for the distributions of Martingales in Banach spaces 1679–1706
PRESUTTI, E., VARES, M. E., DE MASI, A. AND PELLEGRINOTTI, A. Spatial patterns when phases separate in an interacting particle system 334–371
RÉMILLARD, BRUNO. On Chung's law of the iterated logarithm for some stochastic integrals 1794–1802
ROSEN, JAY AND MARCUS, MICHAEL B. Laws of the iterated logarithm for the local times of symmetric Lévy processes and recurrent random walks 626–658
ROSENTHAL, JEFFREY S. Random rotations: Characters and random walks on SO(N) 398–423
SAMORODNITSKY, GENNADY AND NORVAIŠA, RIMAS. Stable processes with sample paths in Orlicz spaces 1904–1929
SAMORODNITSKY, GENNADY AND TAQQU, MURAD S. Lévy measures of infinitely divisible random vectors and Slepian inequalities . 1930–1956
SATO, HIROSHI AND OKAZAKI, YOSHIAKI. Distinguishing a sequence of random variables from a random translate of itself 1092–1096

SCHINAZI, RINALDO, MADRAS, NEAL AND SCHONMANN, ROBERTO H. On the critical behavior of the contact process in deterministic inhomogeneous environment 1140–1159
SCHONMANN, ROBERTO H., SCHINAZI, RINALDO AND MADRAS, NEAL. On the critical behavior of the contact process in deterministic inhomogeneous environment 1140–1159
SCHWEIZER, MARTIN. Approximating random variables by stochastic integrals 1536–1575
SEPPÄLÄINEN, TIMO. Large deviations for Markov chains with random transitions 713–748
SHIELDS, PAUL C. AND MARTON, KATALIN. Entropy and the consistent estimation of joint distributions 960–977
SLUD, ERIC V. MWI representation of the number of curve-crossings by a differentiable Gaussian process, with applications 1355–1380
SOWERS, R. B. Multidimensional reaction–diffusion equations with white noise boundary perturbations 2071–2121
STEIF, JEFFREY E. The threshold voter automaton at a critical point 1121–1139
STUTE, WINFRIED. U-statistic processes: A Martingale approach . 1725–1744
SZULGA, JERZY, DE LA PEÑA, V. H. AND MONTGOMERY-SMITH, S. J. Contraction and decoupling inequalities for multilinear forms and U-statistics 1745–1765
TALAGRAND, M. Sharper bounds for Gaussian and empirical processes 28–76
TALAGRAND, M. The transportation cost from the uniform measure to the empirical measure in dimension ≥ 3 919–959
TALAGRAND, MICHEL. On Russo's approximate zero-one law 1576–1587
TALAGRAND, MICHEL. The small ball problem for the Brownian sheet 1331–1354
TALAGRAND, MICHEL, KUELBS, JAMES AND LI, WENBO V. Lim inf results for Gaussian samples and Chung's functional LIL 1879–1903
TAQQU, MURAD S. AND SAMORODNITSKY, GENNADY. Lévy measures of infinitely divisible random vectors and Slepian inequalities . 1930–1956
UTEV, S. A., CACOULLOS, T. AND PAPATHANASIOU, V. Variational inequalities with examples and an application to the central limit theorem 1607–1618
VAN DEN BERG, J. AND MAES, C. Disagreement percolation in the study of Markov fields 749–763
VARES, M. E., DE MASI, A., PELLEGRINOTTI, A. AND PRESUTTI, E. Spatial patterns when phases separate in an interacting particle system 334–371
VUOLLE-APIALA, J. Itô excursion theory for self-similar Markov processes 546–565
WANG, JULIA QIZHI AND LAI, TZE LEUNG. Asymptotic expansions for the distributions of stopped random walks and first passage

times 1957–1992
WILLIAMS, RUTH J. AND DUPUIS, PAUL. Lyapunov functions for semimartingale reflecting Brownian motions 680–702
WOESS, WOLFGANG AND PICARDELLO, MASSIMO A. The full Martin boundary of the bi-tree 2203–2222
WU, LIMING. Large deviations, moderate deviations and LIL for empirical processes 17–27
WU, YADONG. Asymptotic behavior of the two level measure branching process 854–874
XIA, AIHUA. Weak convergence of Markov processes with extended generators 2183–2202
XIANG, XIAOJING. A law of the logarithm for kernel quantile density estimators 1078–1091
YU, BIN. Rates of convergence for empirical processes of stationary mixing sequences 94–116
ZEITOUNI, OFER, DEMBO, AMIR AND KARLIN, SAMUEL. Critical phenomena for sequence matching with scoring 1993–2021
ZEITOUNI, OFER, DEMBO, AMIR AND KARLIN, SAMUEL. Limit distribution of maximal non-aligned two-sequence segmental score . 2022-2039
ZHANG, CUN-HUI AND KLASS, MICHAEL J. On the almost sure minimal growth rate of partial sum maxima 1857–1878
ZHANG, T. S. AND LYONS, T. J. Decomposition of Dirichlet processes and its application 494–524
ZHANG, YU. A note on inhomogeneous percolation 803–819
ZINN, JOEL AND GINÉ, EVARIST. A remark on convergence in distribution of U-statistics 117–125
ZITIKIS, RIČARDAS, BENTKUS, VIDMANTAS AND GÖTZE, FRIEDRICH. Lower estimates of the convergence rate for U-statistics 1707–1714

Book Review

HAHN, MARJORIE G. Review of *Probability in Banach Spaces: Isoperimetry and Processes* by Michel Ledoux and Michel Talagrand 1115–1120

Correction

RAJPUT, BALRAM S. Supports of certain infinitely divisible probability measures on locally convex spaces 525